

## Modern Asian Studies

<http://journals.cambridge.org/ASS>

Additional services for ***Modern Asian Studies***:

Email alerts: [Click here](#)

Subscriptions: [Click here](#)

Commercial reprints: [Click here](#)

Terms of use : [Click here](#)



---

## Concrete 'progress': irrigation, development and modernity in mid-twentieth century Sind

DANIEL HAINES

Modern Asian Studies / Volume 45 / Special Issue 01 / January 2011, pp 179 - 200

DOI: 10.1017/S0026749X10000259, Published online: 03 November 2010

**Link to this article:** [http://journals.cambridge.org/abstract\\_S0026749X10000259](http://journals.cambridge.org/abstract_S0026749X10000259)

### How to cite this article:

DANIEL HAINES (2011). Concrete 'progress': irrigation, development and modernity in mid-twentieth century Sind. *Modern Asian Studies*, 45, pp 179-200  
doi:10.1017/S0026749X10000259

**Request Permissions :** [Click here](#)

## *Concrete ‘progress’: irrigation, development and modernity in mid-twentieth century Sind*

DANIEL HAINES

*Department of History, Royal Holloway, University of London, Egham,  
TW20 0EX, UK  
Email: tdhaines@gmail.com*

### **Abstract**

The idea of ‘developing’ Sind has been a lynchpin of government action and rhetoric in the province during the twentieth century. The central symbols of this ‘development’ were three barrage dams, completed between 1932 and 1962. Because of the barrages’ huge economic and ideological significance, the ceremonies connected with the construction and opening of these barrages provide a unique opportunity to examine the public presentation of state authority by the colonial and postcolonial governments. This paper investigates the way that ideas of ‘development’ and ‘modernity’ appeared in discourses connected with these ceremonies, in order to demonstrate that the idea of imposing ‘progress’ on a province considered ‘backward’ by the state administrators survived longer than the British regime which had introduced it. The paper begins with the historical links between water-provision and governance in Sind, before examining the way that immediate political concerns of the sitting governments were addressed in connection with the projects, demonstrating the ways in which very similar projects were cast as symbols of different political priorities. The last part of the paper draws out deeper similarities between the logic of these political expressions, in order to demonstrate the powerful continuity in ideologies of ‘progress’ throughout mid-twentieth century Sind.

### **Introduction**

The idea of ‘developing’ Sind has been a lynchpin of government action and rhetoric in the province during the twentieth century. The most important single element of development during the mid-twentieth century was the massive extension and renovation of Sind’s irrigation system and the corresponding increase in acreage of land available for cultivation. The central symbols of this development were three

barrage dams—the Lloyd Barrage at Sukkur completed in 1932, the Kotri Barrage completed in 1955, and the Gudu Barrage completed in 1962. This paper will examine the way that ideas of development and modernity were inscribed in discourses surrounding the ceremonial events connected with these projects, in order to demonstrate that the idea of imposing progress on a province considered backward by its administrators survived longer than the British regime which had introduced it. Because of the vital agricultural and economic importance of the Barrages to Sind, these ceremonies were major events, in which the harnessing of a capricious natural resource (the River Indus) signified the rulers' mastery over their territory. As such, the ceremonies provide a unique window onto the public presentation of state authority before and after Independence.

The power of ritual in locating states in relation to the peoples whom they govern is well-known to the humanities. In terms of colonial India, this scholarship has considered a range of angles, from the shift from princes to nationalist leaders participating in imperial ceremonies during the twentieth-century Raj,<sup>1</sup> to the tension produced by the way that ceremonies function as a performative arena for diverse interests at the same time as the hegemony of the organizer is asserted over the actors.<sup>2</sup> The question of 'performativity' in the postcolonial state has also been considered, especially by Mbembe in the African context.<sup>3</sup> In the context of South Asian irrigation, Tennekoon has illuminated the way in which state-led rituals connected with river-development projects in Sri Lanka have established the material conditions of modernization and the privileging of science and technology in association with a centralized state bureaucracy.<sup>4</sup> Such an approach has not been taken to development in Pakistan. Important work by Ali, Islam, and Gilmartin on British-era canal colonies in the Punjab have not looked beyond Independence, and have not extended their analysis

<sup>1</sup> Douglas Haynes, 'Imperial Ritual in a Local Setting: The Ceremonial Order in Surat, 1890–1939', *Modern Asian Studies*, Vol. 24, No. 3 (1990), pp. 493–527.

<sup>2</sup> Alan Trevithick, 'Some Structural and Sequential Aspects of the British Imperial Assemblages at Delhi: 1877–1911', *Modern Asian Studies*, Vol. 24, No. 3 (1990), pp. 561–578.

<sup>3</sup> Achille Mbembe, *On the Postcolony* (Berkeley: University of California Press, 2001), especially Chapter 3.

<sup>4</sup> N. Serena Tennekoon, 'Rituals of Development: the Accelerated Mahavali Development Program of Sri Lanka', *American Ethnologist*, Vol. 15, No. 2 (1988), pp. 294–310.

beyond the Punjab province.<sup>5</sup> Although histories of Sind have taken British canal-construction into account,<sup>6</sup> relatively little is understood about how the relationship between irrigation and state changed after 1947.

This paper is not a detailed analysis of the ceremonies so much in terms of ritual and performance, rather (whilst bearing in mind the impact that the performativity of ceremonies has) they are treated as moments in which the state's hegemony over the native people and environment were most forcefully asserted. Furthermore, the ceremonies provided anchors for public discussions about the projects, and about the state of development in Sind more generally, and revealed the continuing importance of the idea that bringing progress to Sind was the preserve—and duty—of those in power. Yet despite changing political contexts, the ceremonies displayed striking similarities in their deployment of the idea of 'progress'. The terms 'development', 'modernity' and 'progress' in the Imperial and Pakistani lexicons were politically and morally loaded and, crucially, were considered to be the domains of the state and its agents. Moreover, all participants and commentators seemed to welcome the Barrages, even though the potential problems of water-logging and salinity were well-known beforehand. Within English-language media, the projects were almost universally cast as bringers of productivity and prosperity. Indeed, they were considered the solution to Sind's notorious backwardness, which was thought to have been a product of the province's socio-economic order, and of the irregularity of crop-cultivation which resulted from farmers' dependence on the unpredictable Indus for irrigation water. There were, of course, differences too. Most importantly, the type of progress promoted by the British administration was almost entirely technological. After Independence, the rhetoric also turned on Sind's supposedly 'feudal' society. These differences represented responses to

<sup>5</sup> Imran Ali, *The Punjab under Imperialism, 1885–1947* (Princeton: Princeton University Press, 1988); M. Mufakharul Islam, *Irrigation, Agriculture and the Raj: Punjab, 1887–1947* (New Delhi: Manohar, 1997); David Gilmartin, 'Migration and Modernity: The State, the Punjabi Village, and the Settling of the Canal Colonies', in Ian Talbot and Shinder Thandi (eds), *People on the Move: Punjabi Colonial and Post-Colonial Migration* (Oxford: Oxford University Press, 2004), pp. 3–17.

<sup>6</sup> David Cheesman, *Landlord Power and Rural Indebtedness in Colonial Sind, 1865–1901* (London: Curzon Press, 1997), pp. 30–77; Hamida Khuhro, *The Making of Modern Sind: British Policy and Social Change in the Nineteenth Century* (Oxford: Oxford University Press, 1999), pp. 153–169.

the political challenges facing the respective governments. However, the representation of the state's relationship with modernity was almost identical. British mastery over Indians in the material and technological fields, and Indians' reciprocal preoccupation with 'culture' and 'spirit', was a well-established binary in colonial-nationalist dialogues by the 1930s, and has received a great deal of important critical attention.<sup>7</sup> British discussions of the Lloyd Barrage project certainly provide reinforcing evidence for this body of scholarship. This paper goes further in exploring some of the continuities between British-Indian and Pakistani attitudes towards the problem of development and infrastructure-construction in Sind, in order to highlight the carrying-over of British colonial ideology into the post-independence state.

The sources used fall into two groups: records of the speeches which were made by government personnel at the ceremonies, and commemorative booklets issued there, and contemporary newspaper reports.<sup>8</sup> Of the latter, the focus remains on the opening ceremonies, but other relevant articles have been included to provide more evidence of the progress-discourse. The sources used are all in the English language, which was the language of governance in British-ruled Sind and in post-Independence Pakistan, and was therefore used at the opening ceremonies, and for reports in important national newspapers. Moreover, one of the components of the ideology of progress was the opposition between officials and the educated elite's approach to the projects, as well as the 'parochial', discountable objections raised by 'backward' Sindhis.<sup>9</sup>

<sup>7</sup> Partha Chatterjee, *The Nation and its Fragments: Colonial and Post-colonial Histories* (Princeton: Princeton University Press, 1993), pp. 6–11.

<sup>8</sup> Research for this paper failed to reveal any official material or newspaper articles concerning the Gudu Barrage opening ceremony in 1962. Therefore, the narrative of the Gudu foundation-stone-laying ceremony has been used.

<sup>9</sup> The vernacular press in Sind sometimes took issue with the way that the projects were constructed, and worries abounded among *zamindars* outside the areas which the projects irrigated. But the response of the Anglophone community—British and Indian/Pakistani—was often derisive. For instance, an article in the Bombay-based *Times of India* in 1930 refused to '[A]ccept the definition of the more moderate of the Sind journals we have referred to above that "by the word foreigner we mean all non-Sindhis"; and it is hardly to be expected that such an interpretation will appeal to the people of this [Bombay] Presidency whose credit stands pledged for the repayment of the vast sums which are being expended on the Lloyd Barrage Scheme'. This clearly iterates the financial imperative behind discounting Sindhi opposition to the scheme ['Land in the Lloyd Barrage Area', *Times of India* (Bombay), 5 May, 1930. Collected in India Office Records (IOR) Private Papers, MSS EUR E 372/2]. After Independence,

This paper initially sets out the long historical links between water-provision and governance in Sind, to show why the projects were executed on a practical political level. The next section examines the way that the short- and medium-term political needs of the sitting governments were rhetorically addressed in connection with the projects, and demonstrates the ways in which very similar projects were cast as symbols of different political priorities. The final section draws out the deeper similarities between the logic of these political expressions, in order to demonstrate the powerful continuity in ideologies of 'progress' throughout mid-twentieth century Sind, and its British Indian and Pakistani regional surroundings. These ideologies centred on the distancing of nature from 'scientific' man, with Sindhi cultivators considered to be closer to nature than their British or Pakistani masters—and therefore the distancing was replicated in relations between the governors and the majority of the population. For both colonial and independent governments, this crystallized around the idea that 'backward' Sind could be economically and morally improved by the imposition of a scientific irrigation system on the countryside, and scientific cultivation on the agrarian populace, with the Barrages as monuments to the material power of the adepts of scientific knowledge.

### Water and governance in Sind

Governance in Sind has long been intimately connected to the control of water. Almost nothing will grow there without receiving water from the river, either by flooding or through canals. The Indus was famously integral to the ancient Mohenjodaro civilization. More recently, Sind's Kalhora rulers (1700–1783 CE) expanded and improved the canal system. Their successors, the Talpur Mirs (1783–1843) were less effective in this regard, but did take some responsibility for maintaining the canals.<sup>10</sup> The Mirs' own successors, the British, inherited a wide-ranging and sophisticated canal system. However, it was a truism among early British officers in Sind that the Mirs had

the tension between 'provincial' and 'national' concerns became a defining feature of the idea of 'nation-building'—an ideology in which large-scale development projects such as construction of the Barrages played a defining role.

<sup>10</sup> M. H. Panhwar, *History of Sind Irrigation: 3500 B.C.–Present* (Islamabad: Government of Pakistan, Ministry of Science and Technology, Pakistan Council of Research in Water Resources, 1991), p. 66.

ruined the canal system through neglect of their duty to clear silt and sediments from the channels every year, thus impeding the water's flow.<sup>11</sup>

Under the British, Sind remained dependent on canal irrigation, as did much of north-western India: particularly parts of the Punjab, the North-West Province and the North-West Frontier Province. Parallels were also drawn between Sind and other parts of the British Empire, such as Egypt and Sudan.<sup>12</sup> However, British Sind lagged far behind its neighbours in irrigation development. In the North-West Province, East India Company engineers had begun renovating the Western and Eastern Jumna Canals as early as the 1820s. In 1840, work had started on the Ganges Canal, to irrigate the whole of the Upper Doab.<sup>13</sup> All over northern India, administrative power and water provision were intimately connected, and the government invested a great deal of capital in strengthening this relationship. But in Sind, the physical infrastructure that facilitated it was allowed to remain virtually unchanged, despite the repeated attempts of officials in Sind to put up major canal projects.<sup>14</sup>

This neglect had become a political liability by the early twentieth century. Writing in support of the proposal to build a Barrage at Sukkur, the Commissioner-in-Sind argued in 1920 that:

It is open for agitators at present to point out that comparatively little has been done in Sind of recent years in the way of great works by Government. [...] The undertaking of a great scheme such as that now proposed in Sind would undoubtedly have an excellent effect.<sup>15</sup>

<sup>11</sup> Panhwar cites James Hughes, Deputy Collector of Shikarpur in 1847, and Richard Burton. M. H. Panhwar, *History of Sind Irrigation*, p. 73; Lieutenant Postans, writing in 1841, is cited by E. H. Aitken, *Gazetteer of the Province of Sind* (Karachi: 'Mercantile' Steam Press for the Government [of Bombay?], 1907), p. 258.

<sup>12</sup> See Robert Burton Buckley, *Irrigation Works in India and Egypt* (London: E. & F.N. Spon, 1893); Anonymous, 'Lord Stanley & the Lloyd Barrage', n.d., IOR Private Papers MSS EUR E 372/1. Conversely, when Britain was given the post-First World War Mandate in Palestine by the League of Nations, Indian irrigation experiences helped to guide the new administration. K. Gaarde, 'British Colonial Water Legislation in Mandatory Palestine', in R. Coopey and T. Tvedt, *A History of Water, Volume 2: The Political Economy of Water* (London; New York: I.B. Tauris, 2006), p. 178.

<sup>13</sup> Graham P. Chapman, *The Geopolitics of South Asia: From Early Empires to the Nuclear Age. 2nd Edition* (Aldershot: Ashgate, 2003), p. 119.

<sup>14</sup> See Aitken, *Gazetteer*, p. 262

<sup>15</sup> 'Memorandum by the Commissioner-in-Sind', dated 14 July, 1920, paragraph 5. Enclosed with Shourbridge to Secretary to G.O.I. P. W.D., 30 July, 1920. Government of Bombay, *Public Works Department Irrigation (Works and Accounts), A Proceedings for July 1920*, IOR P/10797.

This justification for barrage-building was rooted in the Sind administration's current political concerns, in particular about the success of the Khilafat Movement, which protested against the treatment of the defeated Ottoman Empire by the Allies after the First World War. By the time the Commissioner's memorandum was written, the predominantly urban Khilafat leadership in Sind had obtained the cooperation of many *pirs*,<sup>16</sup> who brought with them the massed support of their rural followers. The British authorities reacted by arresting leading Khilafatists, in line with state action across India.<sup>17</sup> The Commissioner, however, revealed an awareness of the need for a carrot as well as a stick. He drew explicitly on the idea of public-works construction as a mark of good governance, and cast the Barrage as part of a wider process of irrigation-system construction in India, which could secure the stability of colonial rule. The Lloyd Barrage, therefore, stood as a symbol of the government's vested political interest in cultivation.

Work finally began on the Barrage project at Sukkur in 1923. The decision had been made partly on the aforementioned political grounds, partly on the grounds that irrigation development in Punjab on the Indus tributaries would harm water availability in Sind, and partly because of the lure of increased revenue receipts which would accrue from the massive increase in the area that could be put under profitable crops in the province. The Lloyd Barrage (named after Sir George Lloyd, the Governor of Bombay who oversaw its inception and construction) was formally opened by Viceroy Willingdon on 13 January, 1932. Over the remaining 15 years of British rule, the Barrage system proved its financial and food-producing worth, especially during the grain-shortage crises of the Second World War. During that War, outline plans were prepared for two more weirs on the Indus in Sind: one downstream of Sukkur, to irrigate Middle and Lower Sind, and the other upstream, to irrigate Upper Sind.<sup>18</sup> After the Partition of British India and the creation of Pakistan, water in Sind and Punjab suddenly became an international issue, when in

<sup>16</sup> *Pirs* are Sufi Muslim spiritual leaders, considered by their followers to be living saints, who have traditionally wielded considerable temporal power in Sind. Their followers include both Hindus and Muslims.

<sup>17</sup> On the growth and suppression of the Khilafat Movement in Sind, see Sarah Ansari, *Sufi Saints and State Power: The Pirs of Sind, 1843–1947* (Cambridge: Cambridge University Press, 1992), pp. 77–100.

<sup>18</sup> Government of Sind, *Postwar Development Schemes First Edition* (Karachi: Government Press, 1945), pp. 51–68.



1948 India stopped the flow of water into Pakistan from the Indus tributaries in its (upstream) half of Punjab. The ensuing dispute was not resolved until 1960. Moreover, the huge population ‘transfers’ caused by Partition created a desperate refugee problem in Pakistan: the 1951 Census enumerated seven million people as being of refugee origin.<sup>19</sup> During Pakistan’s first few decades in existence, refugee rehabilitation was taken as an integral part of national development by policymakers.<sup>20</sup> Pakistan now needed to provide food for its new population, and to raise cash-crops for export in order to boost its critically low foreign-exchange reserves. The existing projects for the new Sind barrages were, therefore, enthusiastically taken up. The first, to irrigate Lower Sind, was constructed at Kotri, and opened on 15 March, 1955; the second, to irrigate Upper Sind, was constructed at Gudu, and became operational in March 1962.

### The opening ceremonies

The three barrage projects were, therefore, essential in practical terms to the political and financial survival of the pre- and post-Partition regimes in Sind. But they were also implicated in how administrators viewed themselves and their relationship with the public, and *vice versa*. The rhetoric surrounding the building of the barrages was sometimes so forceful and dramatic in scope that they seemed almost to represent the essence of governance in Sind. They stood as concrete evidence of the effectiveness with which engineering knowledge could be deployed by those who had the resources and the political will. This view was promoted most stridently at public events connected with the barrages: at the laying of foundation-stones before construction, and then the formal openings of the new irrigation systems. At these events, the full pomp of colonial and post-colonial rule was deployed to mark the importance of such large-scale projects. The involvement of top state personnel, such as the Viceroy of India, the Governor-General and (later) the President of Pakistan, emphasized their extra-provincial significance. At these ceremonies, the everyday story of concrete, crops and hard cash was forcefully placed into the grand contexts of the colonial civilizing mission, and Pakistani

<sup>19</sup> Ian Talbot, *Freedom’s Cry: The Popular Dimension in the Pakistan Movement and Partition Experience in North-West India* (Karachi: Oxford University Press, 1996), p. 154.

<sup>20</sup> Vazira Fazila-Yacobali Zamindar, *The Long Partition and the Making of Modern South Asia: Refugees, Boundaries, Histories* (Oxford: Oxford University Press, 2007), p. 9.

nation-building. Moreover, the profile of these ceremonies—and of the barrage projects themselves—in the contemporary Anglophone press followed remarkably similar lines to the rhetoric expressed by government officials.

On 24 October, 1923, the Governor of Bombay laid the foundation stone for the Lloyd Barrage. The event took place, according to one report, 'Amid scenes of gorgeous splendour, attended with pomp and ceremony rarely excelled even in the presence of Kings and Princes'.<sup>21</sup> The Executive Engineer of the Barrage's speech outlined the history of the project, from its roots in shelved nineteenth-century irrigation schemes to its sanctioning by the Secretary of State for India. Thus, he cast the story of the Barrage as one in which the tenacity of Sind's British administrators and engineers finally resulted in the construction of the Barrage system, which would: '[C]onvert a desert into a garden, [and] also ensure prosperity to those cultivators who[... ]live on from year to year in that demoralizing atmosphere which is produced by an uncertain and scanty supply of irrigation water.'<sup>22</sup> The Governor himself continued in a heroic vein, declaring that: 'Nothing indeed could be more strikingly indicative of the magnitude of the problem which this Barrage is to solve than the long story of the many attempts that have been made to convert this great waterless tract into a land of rich harvests.'<sup>23</sup> Similarly, a representative of the Hyderabad District Local Board asserted that the Barrage's '[M]agnificence and the beneficial effects[... ]are not excelled by any attempt that has yet been made for harnessing any of the great rivers of the world'.<sup>24</sup> The Governor also expressed an early indication of the celebration of the Barrage as a material fact which would become such a strong recurring theme of the later ceremonies: 'It is hardly possible to imagine how fine an appearance of massive yet elegant strength this giant work will present to the travellers who approach it by any of the great main roads which it will serve to connect'.<sup>25</sup>

These statements could seem indicative of little more than self-congratulatory hyperbole. But they demonstrate the Barrage's potential as a symbol of human endeavour. Nine years later, at the

<sup>21</sup> 'World's Greatest Irrigation Project', *The Daily Gazette* (Karachi), 25 October, 1923.

<sup>22</sup> Quoted in *ibid.*

<sup>23</sup> *Ibid.*

<sup>24</sup> *Ibid.*

<sup>25</sup> *Ibid.*

same Barrage's opening ceremony in 1932, this valorization had matured into almost a fetishization of engineering ability—perhaps encouraged by the fact that, once construction was accomplished, the actual existence of the Barrage made for a more convincing emphasis on its material aspects. In a souvenir booklet given out to attendees at the opening ceremony, this valorization was visually represented by the 20 pages of the booklet which consisted solely of photographs of the Barrage and canals, in various stages of completion. In none of these photographs does any human feature prominently. The shots are all of machinery and the Barrage structure itself. Human workers, when they do appear, are dwarfed by the machines they are using and by the products of their labours. In fact, the only shot which specifically shows any living creature in close-up is of two donkeys, with the caption 'Dumb Workers'.<sup>26</sup> For British engineers, their non-representation in the pictures was offset by a list of their names at the back of the booklet. For the thousands of Sindhis, Baluchis and Punjabis who worked on the project there is barely a mention, except in connection with the operation of plant machinery.

Judging by the souvenir booklet alone, the progress which the Barrage and canals embodied would seem to be primarily technological. While the administrative and logistical challenges it had presented were also mentioned, it was the scientific construction of the project which received the most attention. At the opening ceremony of the Kotri Barrage 23 years later in 1955, there was a similar implication that the type of 'progress' embodied by the new Barrage depended on technological development. Sind's Chief Minister, Mohammed Ayub Khuhro, emphasized the Barrage's visual impact on the landscape:

While no money has been wasted on purely ornamental or decorative features, every thought has been given to the appearance of the Barrage so that it may have the natural good looks of a structure—soundly built, and with all its parts severely designed to carry out their functions without waste or grandioseness.<sup>27</sup>

<sup>26</sup> N.a., *The Opening of The Lloyd Barrage and Canals by His Excellency The Earl of Willingdon, G.M.S.I., G.C.M.G., G.M.I.E., G.B.E., Viceroy and Governor General of India on Wednesday, the 13th January 1932* (Bombay: The Government Central Press, [1932?]), p. 23.

<sup>27</sup> *Speech of the Hon'ble Mr. M.A. Khuhro, Chief Minister of Sind, on the occasion of the Opening Ceremony of the Kotri Barrage by His Excellency the Governor-General of Pakistan on 15th March 1955*, p. 4. In United Kingdom National Archives (U.K.N.A.) File DO 35/8581: 'The Kotri Barrage Project, Pakistan'.

By making practical and cost-effective construction work into an aesthetic statement, Khuhro allowed the sheer material solidity of the dam to stand for the work it represented, and the faith in scientific agriculture it manifested. In doing so, he followed the logic of the photographs in the Lloyd Barrage souvenir booklet. Moreover, he now claimed the same scientific expertise for Pakistan which had previously been the preserve of the British rulers: 'The project', he said, was:

[C]onstructed by Pakistani Engineers and staff with the exception of the Chief Engineer and a few British Engineers, never more than five and for most of the time considerably less, who were chiefly required on the mechanical side. [...] With one partial exception, all the canal works are being executed either directly or by Pakistani Contractors.<sup>28</sup>

Khuhro was here claiming that Pakistanis had successfully taken on and reproduced the scientific knowledge which British administrators had deemed such an important marker of British superiority only three decades previously. Since the original plans for the Kotri Barrage had been laid under British administration, this perhaps bordered on the disingenuous. But by judging the independent state's action's by the same criteria used by the colonial state, Khuhro drew attention to the similar ideological space which both administrations sought to occupy.

In both cases, such an emphasis on technical aspects elided the very important social and political implications of such large irrigation projects. But Khuhro was not the top state representative present at the Kotri ceremony, and it was the Governor-General, Ghulam Mohammad, who took Viceroy Willingdon's ceremonial role as the man to formally open the project. The format of the ceremony seems to have been similar—featuring the country's political figurehead, decorative bunting, speeches extolling the Barrages' virtues and those of the engineers who had built them—but Ghulam Mohammad departed from the Sukkur template by directly addressing contemporary political issues. In particular, he promoted his government's ostensibly pro-peasant political stance. The opening paragraph of his speech declared that:

<sup>28</sup> Speech by the Hon'ble Mr. M.A. Khuhro, p. 2.

[N]othing gives me greater pleasure than to watch the completion of a project which directly benefits the common man, and is destined to produce more food for Pakistan's millions whose welfare is very dear to my heart.<sup>29</sup>

The Governor-General went on to emphasize the improvements in food supply which the Barrage would deliver, and to place the Barrage in the context of his government's wider economic and development policies. All of these statements emphasized the role of the central government in promoting economic and industrial progress in general, and agricultural development in particular. Ghulam Mohammad was, in short, using his speech to promote his own political agenda. This became much more pronounced in the last part of the speech, in which he declared that:

[I]n distributing land care should be taken that we do not give such land to big landlords and thus add to our difficulties. [...] In the past, I am afraid, there has been some lack of fair play in this regard, and I do hope and believe that the government of Sind shall strain every nerve to mend the conditions and improve the distribution in the best interest of the common man. [...] The common man, whether a refugee or a local, is the core of our nation and all our schemes and projects must aim at ameliorating the hardships of his day to day life.

The appeal to the common man was perhaps inflected by the fact that Ghulam Mohammad's central government had begun almost bypassing democratic processes during the previous year, an act which foreshadowed Ayub Khan's 1958 military coup. By emphasizing the state's relationship with everyday citizens, Ghulam Mohammad sought to demonstrate a direct identification with the people outside the political classes, a populist legitimacy for his regime. This endeavour, of course, represented the finest colonial tradition of declaring political challengers to be the non-representative 'elite', and, in the same manner as the colonial government, claimed that the modernist and progressive military and civil bureaucracy ought to rule a people who were too culturally primitive to be trusted with democracy. This idea was certainly taken up, to some extent, by the press. The Karachi-based weekly, *Commerce*, sought to annex his speech to its own correspondent's opinions:

The Governor General did not say this in so many words but we have no doubt that he felt it as keenly as many people do that in resisting agrarian reforms

<sup>29</sup> Speech of His Excellency the Governor-General at the Opening Ceremony of the Kotri Barrage, 15 March, 1955, p. 2. In U.K.N.A. File DO 35/8581.

in the country the feudal lords were precipitating conditions which would in the end spell a disaster for them.<sup>30</sup>

Here, the use of the word 'feudal' suggested an open conflict between the old and the new: the image was not of a class struggle between big landlords and their *haris* (cultivators who worked a landlord's land), but of an endangered reactionary group fighting a rearguard action against the natural—and national—march of progress. Conversely, the state's representative, the Governor-General, was associated with progress. This suggested that the modernization of agriculture, both technical and cultural, was an inevitable part of the Pakistani national story. Similarly, a report on the opening ceremony in *Dawn* stated that: 'A proud day was recorded in Pakistan's history when the Pakistan Governor-General yesterday flew into Hyderabad' to perform the opening ceremony.<sup>31</sup>

The 'national story' aspect of the Kotri ceremony was characteristic of early-independence Pakistan.<sup>32</sup> Accordingly, it was repeated at the foundation-stone-laying ceremony for the Gudu Barrage, which took place on 2 February, 1957. In an address presented to President Iskander Mirza by the West Pakistan Minister of Communications and Works, engineering expertise was presented as fundamental to national development:

In the development of any country the Engineers have to play a great part. In our young country we need more Engineers and good Engineers. The task of constructing this new Nation will mainly fall on their shoulders. [...] Our Irrigation Engineers have already made their mark and I am happy to say this Barrage is entirely the work of our Pakistani Engineers.<sup>33</sup>

Mirza, in his reply, enunciated the same theme:

[T]he engineering profession holds a place of honour among the other leading professions in a nation-building programme. [...] The country expects that

<sup>30</sup> 'Kotri Barrage', *Commerce* (Karachi), 19 March, 1955.

<sup>31</sup> 'Impressive Ceremony', *Dawn* (Karachi), 16 March, 1955.

<sup>32</sup> The concept of 'nation building' was a favourite post-Independence trope and covered various aspects of moral and material 'national progress'. For instance *Sind Information*, a Government of Sind journal, carried a column called 'Towards Nation Building', which, to cite one issue, reported on the opening of new workshops, sea port development, and the functioning of a new labour exchange. 'Towards Nation Building', *Sind Information* (Karachi), 1:4 (1948), 101.

<sup>33</sup> Address presented to Major-General Iskander Mirza, President of the Islamic Republic of Pakistan, on the occasion of the foundation stone laying ceremony of Gudu Barrage. In U.K.N.A. File BT11/5110, 'Pakistan: Upper Sind or Gudu Barrage'.

they will live up to their reputation in the execution of this Project and thus contribute to the building of a better, happier and prosperous Pakistan.<sup>34</sup>

A commemorative booklet which was issued at the Gudu ceremony pictorially represented ordinary barrage-workers to a much greater extent than the Lloyd Barrage booklet had done, but it still supported the dominance of engineering with a wealth of technical detail and photographs of earthworks.<sup>35</sup> Alongside this by-now familiar celebration of the project's materiality, the immediate political context again formed a theme of the speeches here. The address to Mirza noted that the integration of Sind (and other former provinces) into the huge West Pakistan province under the One Unit Scheme<sup>36</sup> meant that non-Sindhi land could be irrigated without causing provincial disputes.<sup>37</sup> The Scheme, then, allowed the more rational implementation of development projects, free of the former provinces' administrative and political borders. This point had previously been made—although not in the context of an administratively united West Pakistan—by an important Sindhi geographer in a newspaper article as early as 1948. 'There is no doubt', he wrote,

[T]hat the concept of 'region' has to be developed in the solution of Pakistan's problems and the haphazard political boundaries have to be discarded at any rate. That all artificial political boundaries are a nuisance in our work of national planning is beginning to be realised at long last. [...] No longer shall we think in terms of the N.W.F.P., West Punjab, Sind, and Baluchistan, but the main PHYSIOGRAPHIC [sic] regions[.]<sup>38</sup>

During the 'One Unit' period, the West Pakistan administration was able to take such a regional approach. Moreover, Khuhro's own speech at the Kotri ceremony refrained from attacking Punjabis precisely because he had recently been reinstated as Sind's Chief Minister by the federal government on the understanding that he would promote

<sup>34</sup> Iskander Mirza, speaking on 2 February, 1957, speech transcribed in U.K.N.A. File BT11/5110, 'Pakistan: Upper Sind or Gudu Barrage'.

<sup>35</sup> *Gudu Barrage Project* (N.p.: Directorate of Information, Government of West Pakistan, n.d.). In U.K.N.A. File BT11/5110.

<sup>36</sup> The One Unit Scheme merged Sind with Punjab, Baluchistan, and the North-West Frontier Province to form a new province called 'West Pakistan'. It proved to be unpopular with Pakistani Bengalis, Sindhis, and Balochis, and was reversed by Yahya Khan in 1970.

<sup>37</sup> *Address presented to Major-General Iskander Mirza*.

<sup>38</sup> Maneck B. Pithawalla, 'Water resources of the dry zones in Pakistan', *Sind Observer Illustrated Sunday Supplement* (Karachi), 26 September, 1948.

the One Unit Scheme to his Sindhi constituency.<sup>39</sup> On a practical level, the administrative scheme allowed Gudu water to be sent outside the former Sind province. On an ideological level, it forced a project that originated with the Sind Government to bend to the rhetorical requirements of a drive to erase pre-Pakistan political loyalties.

### **'Progress' and 'modernity' under changing regimes**

The rhetoric displayed at these occasions maintained a remarkable continuity in the discursive language they deployed. The routine calls for self-sacrifice in the name of 'nation building' in post-Independence Pakistan suggested a new tone to ideas of development, but irrigation projects which followed almost identical systemic formats were cast as emblems of different political regimes in almost identical manners. Why this continuity? The very emphasis on engineering expertise as a Pakistani trait seemed to usurp the former colonialists' claims to superiority over their erstwhile subjects. But this obsession with engineering had firm colonial roots in ideas about what 'development' was. The attitude of the ruling classes—especially the bureaucrats and technocrats—in independent Pakistan towards Sindhi agriculture was almost identical to those of their British predecessors. In both periods, the Sindhi cultivator was seen as a malleable material onto which 'progress' could be stamped, as the physical landscape could be manipulated by the Barrages.

The ideas of 'progress' which motivated and accompanied the building of the projects, therefore, ran beyond the valorization of the Barrages' materiality. One of the foundations of the way that the colonial regime perceived and presented the Lloyd Barrage project was the widely-held attitude that native Sindhi cultivation was slovenly and ineffective. Many years before the project had been accepted, the author of the 1907 *Sind Gazetteer* had lamented the precedence of leisure over work in Sindhi agrarian culture:

[T]he truth is that, in the absence of competition, ambition and every other stimulus which urges the husbandman to get the most he can out of his field, the Sindhi has for generations cherished the gentler ideal of allowing his field to divorce him as little from his hookah as might be compatible with keeping the latter filled.<sup>40</sup>

<sup>39</sup> Ayesha Jalal, *The State of Martial Rule: The Origins of Pakistan's Political Economy of Defence* (Cambridge: Cambridge University Press, 1990), p. 200.

<sup>40</sup> Aitken, *Gazetteer*, p. 240.



Sindhis were compared especially unfavourably with Punjabis,<sup>41</sup> who were considered to be model farmers for arid, canal-irrigated land. Punjabi peasants had already proved themselves in Sind during the colonization of Jamrao Canal land, an endeavour in which Sindhi peasants had fared badly.<sup>42</sup> The cause of the Sindhis' lacking in this regard was popularly held to be their historic dependence on the notoriously unreliable Indus, which would rise and fall unpredictably each summer, so that the correct quantity of water could not be guaranteed at the correct time for successful cultivation. The Barrage, by regulating a water supply which the cultivators could rely on for year-to-year consistency, could remedy this. As one Sind official wrote, once a stable water supply was assured, '[T]he traditional indolence and fatalism of the Sindhi cultivator may be sought in vain'.<sup>43</sup> This same position was more publicly articulated on the first page of the Sukkur Barrage souvenir booklet:

The uncertainty of supply, so uncertain that no cultivator has been in a position to forecast what is likely to happen a fortnight ahead, has led to haphazard cultivation and the cultivator has felt that *kismet* [sic] rather than his own systematic exertions, is the ruling factor in his agricultural operations. To put an end to this uncertainty [...] it was necessary to devise some means of assuring a level of the water in the river which would permit of more certain and orderly irrigation conditions.<sup>44</sup>

The cultivator's trust in *kismet*, or fate, was used to draw a binary opposition between 'spiritual' India and the 'modern' West. The cultivator's close relationship with the Indus also pointed to a distinction between the Sindhi as limited by the natural world, and the British engineers as its masters. The ability to bring certainty and order to the chaotic process of cultivation became a justification for imposing a new system on the cultivators: physical engineering intersected with socio-cultural engineering. However partial and hesitant the latter may have been, it was integral to the rhetoric which defined the sort of 'progress' that the Barrage was expected to instil. This idea found an even more explicit expression in an article

<sup>41</sup> Sarah Ansari, 'Punjabis in Sind: Identity and Power', *International Journal of Punjab Studies* Vol. 1, No. 2 (1995): pp. 1–21, 6–8.

<sup>42</sup> Untitled note by Dow, dated 16 March, 1926, paragraph 8. IOR Private Papers. MSS EUR E 371/2.

<sup>43</sup> Hugh Dow, 'Note on Sind', undated (circa mid–late 1920s). IOR Private Papers. MSS EUR E 372/1.

<sup>44</sup> *Opening of the Lloyd Barrage*, p. 1.

published in the Bombay-based, English-language, daily newspaper the *Times of India*. The article reported that:

On the morning after the official opening of the Barrage by His Excellency the Viceroy, there might have been witnessed a second opening ceremony, in its way no less impressive. A white-bearded and saffron-robed saint from the north stretched his arms in benediction over each of the canals and in a loud voice intoned a solemn song of praise and prophecy. He gave rather more thanks to God and less to the engineers than His Excellency had done, and was less concerned with history and more with poetry. He looked like a man from a thirsty land, and his picture of the blessings brought by irrigation was a vivid one.<sup>45</sup>

The article also inscribed a fundamental difference between the material 'reality' of the Barrage and the saint's 'illusory' approach to it, which invoked the irrational fields of prophecy and poetry rather than the supposedly solid and objective categories of engineering and history. The audience—expatriate Europeans or English-literate Indians—naturally 'knew' that His Excellency's praise of the engineers and historical progress expressed the true facts of the matter. This again carried the implication that the Barrage, and the engineers who oversaw its construction, were naturally enmeshed in the slow stamping of both 'modern' ideas and 'modern' structures onto the Sindhi physical and cultural landscapes. It asserted that the Barrage could be symbolically interpreted by the saint in a different way to that presented in the official ceremony, but on the other hand, this suggested that the ability to actually construct it was reserved to the British-dominated ruling class, whose vision of a productive Sind would be made a reality through the proper application of scientific principles. The saint's irrational, spiritual response to the fact of the Barrage represented precisely the culture which the project was credited with helping to reshape. The figure of the saint did not reappear in post-independence discussions of the Barrages—not surprising, given the departure of the majority of Sind's Hindus at Partition. In fact, any question of 'spirituality' was submerged. Even the hotly-contested place of Islam in the Pakistani state went unmentioned.<sup>46</sup> The article's wry, implied dismissal of the saint's way of engaging with the Barrage as a harbinger of change encapsulates the

<sup>45</sup> *Times of India*, 12 December, 1932.

<sup>46</sup> See Andrew Wilder, 'Islam and Political Legitimacy in Pakistan in Muhammad Aslam Syed (ed.), *Islam and Democracy in Pakistan* (Islamabad: National Institute of Historical and Cultural Research, 1995), pp. 38–40.

equation of a spiritual/material binary with an Indian/European one, a phenomenon which underpinned much colonial epistemology. Indeed, the figure serves to emphasize the material nature of the construction which underlies the saint's spiritual texture. The 'rationality' which the dismissal of the saint represents was subsequently carried smoothly into the post-Independence period, as the postcolonial state took up the colonial state's rationalist claim to truth.<sup>47</sup> As it did so, it maintained the distinction between the expertise reserved to those in government and the inferior knowledge of the population of Sind.

By contrast, the question of 'scientific agriculture' was not merely a rhetorical device: during and after the Lloyd Barrage's construction, the government put a good deal of effort into encouraging Sindhis towards this type of farming. An experimental farming station was established in 1925, and a government-sponsored team travelled the country and taught cultivators new methods. The Chief Agricultural Officer in Sind also issued public information pamphlets which advised farmers on the new conditions which would come into existence when the Barrage project was completed, and recommended the best ways to grow new crops.<sup>48</sup>

As we have seen, this emphasis on (British) engineering and scientific agriculture spoke to a powerful set of assumptions about what constituted good agriculture, and these same assumptions were then carried over into Pakistani discussions in almost identical language. The post-Independence governments in Pakistan issued a wealth of publications concerning the question of 'national development', and naturally the topic found regular discussion in contemporary newspapers. Now, the theme of 'improving' Sindhi agriculture through administrative and social reforms became much more pronounced. The social aspects of agricultural practice had been very important in the way that the Lloyd Barrage was presented, and to an extent this was reflected in the land allocation policies which the government adopted. The land allocation policies for the Lloyd Barrage had

<sup>47</sup> This statement takes up Chatterjee's argument that some nationalist thought in India took on Western claims to rationality as the truest form of knowledge. Partha Chatterjee, *Nationalist Thought and the Colonial World: a derivative discourse?* (London: Zed Books, 1986), pp. 14–17.

<sup>48</sup> Examples include, *Leaflets for distribution in Sind, No. 31 (1023): Improved varieties of cotton recommended by the Department*, and *Agricultural Leaflet No. 30 (1st Edition August, 1933): The cultivation of rabi oil-seed crops in the barrage areas of Sind*. Issued by the Government of Bombay Agricultural Department.

some 'pro-peasant' elements, and Hugh Dow, the officer responsible for formulating this policy, warned his colleagues against allotting land to 'landgrabbing big *zamindars*'.<sup>49</sup> However, *zamindars* were still given very favourable terms for Lloyd Barrage land. As Ghulam Mohammad's speech at the Kotri opening ceremony demonstrated, this became a much more important theme after Partition. After Independence, as we have seen, bureaucrats, politicians and the press often made much greater rhetorical play of the importance of helping the 'common man'. For example, an article in *Wealth* in 1950 argued that:

The Tenancy Act passed during the Budget Session this year has in a way liberated 25 lakhs of tillers of soil from the heartless exploitation of some seven thousand landlords. [...] Same [sic] policy will be followed in the Lower Sind Barrage area also. The allied problems of 'jagirs' and their abolition is also under consideration of the Government.<sup>50</sup>

Land reforms were painfully slow in coming and, when they did, had at best a limited impact.<sup>51</sup> But the concept played an important part in defining what kind of nation-state the new Pakistan was to be. The Barrage-opening ceremonies weighed into the debate by typifying the materialist, secular discourses which surrounded public works development during the 1950s and 1960s, and the accompanying trope of the 'common man' as the heart of the nation.

Of course, the question of land and agrarian culture was not confined to direct discussions of the Barrage. One public-information book, published by the Government of Sind while the Kotri Barrage was under construction, carried an article arguing that: 'The people who

<sup>49</sup> Untitled note by Hugh Dow, dated 16 March, 1926, paragraph 43.

<sup>50</sup> 'Sind's efforts to develop her agriculture and industry', *Wealth* (Karachi), 13 August, 1950). Jagir landholdings were large areas on which the master did not pay land revenue to the government. The 'problem' of jagirs, the financial losses to the state which they represented, and the social and political strength they gave to the big landlords, had exercised Sind's administrators ever since Napier's conquest. The British in Sind had maintained the status of jagirs to a great degree, and did nothing significant to challenge their power. On jagirs and land tenure reform in British Sind, see David Cheesman, *Landlord Power and Rural Indebtedness in Colonial Sind, 1865–1901* (Richmond: Curzon, 1997), Chapter 2.

<sup>51</sup> Ayub Khan promulgated the West Pakistan Land Reforms Regulation No. 64 on 7 February, 1959, but it was fatally undermined by loopholes and by cooperation between landlords and the local revenue authorities, which had the responsibility for implementing the reforms. Ian Talbot, *Pakistan: A Modern History* (Lahore: Vanguard Books, 1999), pp. 165–166.

work on the land are condemned by their inefficient methods, to a life of drudgery[,]’ and that the solution lay in partial mechanization of farming alongside land-tenure reforms.<sup>52</sup> The new emphasis on land and social reform went deeper than the bureaucracy’s running battle with Sind’s landlord-dominated political classes, and fitted with the broad moralizing aspects of ‘nation-building’ which characterized early post-Independence discourse in Pakistan. The centrality of people—of the patriotic individual’s efforts and sacrifices—in these discussions would seem to oppose the centrality of engineering and materiality in British-era Lloyd Barrage discourses. Indeed, the officials and citizens who spoke and wrote about the Kotri and Gudu Barrages spoke to a sovereign nation-state rather than an imperial state. Accordingly, the later rhetoric stressed the Pakistani nation’s need for food to eat and to export, whereas Sukkur-era rhetoric had almost exclusively stressed the prosperity that the project would bring to Sind itself. But, even leaving aside the continued valorization of technology and engineering that can be seen regarding the Kotri and Gudu projects, this theme reiterates one of the foundational premises of the ideology expressed with relation to the Lloyd Barrage: namely, that Sindhi agriculture was fundamentally ‘backward’ and unproductive. The declaration that this should be changed was now made in the name of the nation, rather than in the interests of Sindhis, and Sindhi landlords were explicitly held culpable for the state of affairs. The imposition of this change on the population by the government, through large-scale irrigation projects which required the intensification of agriculture and the adoption of new farming techniques, was unerringly similar. Moreover, the changing regimes all exploited the idea that the construction of an irrigation project could fundamentally alter Sindhi society for the better. This very fact belied the continuation into post-Independence Pakistan of the British ruling class’s paternalist, autocratic response to the perceived need to raise food production and land revenue. The basic idea that the government had a right, and even a duty, to educate the cultivators in the ‘correct’ ways of farming appeared in 1962, the year that the Gudu Barrage became operational, as strongly as it had in 1932. According to a report in *Dawn*, the Chairman of the West Pakistan Agricultural Development Corporation:

<sup>52</sup> ‘Sind Agriculture: its past present and future [sic]’ in n.a., *Sind People and Progress* (N.p.: Directorate of Information Sind, n.d., n.p. n.).

[E]xhorted the cultivators and field workers to work in closest cooperation and make the development programme for the Gudu Barrage area a complete success. [...] The Corporation was now leading and co-ordinating all work connected with land development, colonisation, agricultural extension and intensification, cropping pattern and such other activities. Nevertheless, he added, only hard work on the part of everybody concerned and full utilisation of agricultural supplies like good seeds, fertilisers, credit facilities and improved implements could produce the necessary increase in acreage and production.<sup>53</sup>

Again, the material fact of the Barrage required technical and cultural changes in the way that cultivators operated and, again, the logic of the project's execution—increased agricultural output, leading to increased prosperity for the province or nation—required the compliance of cultivators with an official-led vision of how agriculture should be practised.

This continued the colonial discourse of the triumph of British scientific irrigation over the native cultivator's techniques, with the independent state taking on the colonial state's self-promoting ideological role. The implication that Pakistani agriculture needed to be fundamentally altered to overcome food shortages and political instability, and to contribute to Pakistan's foreign exchange position, ran through the speeches and newspaper reports associated with the Kotri and Gudu Barrage ceremonies. Although the political context of these needs had changed since the 1930s, a direct discursive line can still be drawn between the ideas of 'progress' deployed in relation to the three projects. Moreover, the colonial and early-independent states followed near-identical trajectories in approaching the challenges faced by agriculture in an arid country. Throughout the period under discussion, the renovated irrigation systems—with the new Barrages as their symbolic, as well as technical, lynchpins—were made to stand for the virtually unquestioned idea of 'progress'. The discourses which accompanied the Barrages' openings allotted them political meaning: not just in the immediate politics of the respective eras, but also in the deeper structural control exercised by an elitist, paternalistic, bureaucratic administration with overwhelming military backing. Both states attempted to cast themselves in the role of champion of modernity, as against the perceived backwardness of Sindhi landowners and cultivators. The reservation of knowledge which was embedded in this discourse was,

<sup>53</sup> 'Farmers asked to work hard', *Dawn*, 22 December, 1967.

of course, open to contestation, as Khuhro and Ghulam Mohammad's attempts to 'out-modern' each other suggest. But the ceremonies demonstrated the durability and pervasiveness of an ideology which, rightly or wrongly, promoted national 'progress' as a scale on which technology-intensive irrigation projects ranked above the habits and attitudes of the majority of the population.